

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An apparatus for upgrading a software of a television broadcasting signal receiving apparatus, comprising:

a code detecting unit for detecting a software code included in an advertisement broadcasting signal during only broadcasting of an advertisement;

a version comparing unit for comparing a version of a the software code included in ~~an~~ the advertisement broadcasting signal and a version of a ~~previously installed~~ previous software code installed on the television broadcasting signal receiving apparatus; and

an upgrade processing unit for installing software associated with the software code included in the advertisement broadcasting signal on the television broadcasting signal receiving apparatus if the version of the software code is newer than the version of the ~~previously installed~~ previous software code.

2. (Previously Presented) The apparatus of claim 1, wherein the software code includes data of an upgraded system software.

3. (Currently Amended) The apparatus of claim 1, wherein the software is a system software to be installed in ~~an apparatus for receiving digital broadcasting~~ a digital television broadcasting signal receiving apparatus.

4. (Cancelled)

5. (Original) The apparatus of claim 1, wherein the software is an upgraded software.

6. (Cancelled)

7. (Previously Presented) The apparatus of claim 1, further comprising:

a mode setting unit for setting a download-possible mode by determining whether the software code can be downloaded when the advertisement broadcasting signal in which the software code is inserted is received.

8. (Original) The apparatus of claim 1, further comprising:

a storage unit for storing the software code.

9. (Previously Presented) The apparatus of claim 1, further comprising:

an error detecting unit for determining whether an error exists in the software code included in the advertisement broadcasting signal.

10. (Previously Presented) The apparatus of claim 1, the advertisement broadcasting signal corresponds to an advertisement of a certain company.

11. (Currently Amended) A method for upgrading a software of a television broadcasting signal receiving apparatus, comprising the steps of:

detecting a software code included in an advertisement broadcasting signal during only broadcasting of an advertisement;

receiving comparing a version of the software code included in an the advertisement broadcasting signal in which a user data containing a software code is inserted and a version of a previous software code installed on the television broadcasting signal receiving apparatus ; and

installing software associated with the software code on the television broadcasting signal receiving apparatus.

12. (Cancelled)

13. (Currently Amended) The method of claim 11, wherein the software is a system software to be installed in ~~an apparatus for receiving digital broadcasting~~ a digital television broadcasting signal receiving apparatus.

14. (Currently Amended) The method of claim 11, further comprising a step of:
checking whether the software code corresponds to a model of a the television broadcasting signal receiving apparatus or an error exists when the advertisement broadcasting signal in which the software code is inserted is received.

15. (Cancelled)

16. (Currently Amended) The method of ~~claim 15~~ claim 11, further comprising a step of:
deleting the ~~received~~ software code if when the version of the software code is not newer
than the version of the ~~previously installed~~ previous software code; and
checking whether the software will be upgraded ~~in case~~ when the version of the software
code is newer than the version of the ~~previously installed~~ previous software code.

17. (Original) The method of claim 11, wherein the software is installed or deleted
according to a response of a user.

18. (Original) The method of claim 11, wherein the user data includes:
a header block including basic index information on the software; and
a payload block including the software code.

19. (Original) The method of claim 18, wherein the header block and payload block are
formed in a packet form.

20. (Currently Amended) The method of claim 18, wherein the header block comprises:

an applied receiver description code block for checking a the television broadcasting signal receiving apparatus which performs software upgrade by recording brand name and model number of a the television broadcasting signal receiving apparatus;

a version number block for showing version information of the software code;

a current packet number block for showing an order of the current packets when receiving the software code divided into a number of packets;

a last packet number block for checking the total number of the packets;

a status flag block for recording an error correction type and information of beginning and ending address of a target memory;

a payload length block for recording the length of a payload; and

a software version information block for recording guide information about the code version of the software.

21. (Previously Presented) The method of claim 18, wherein the payload block comprises:

a software code unit for recording the software code which is divided into packet units with a certain size; and

an error check block for checking whether an error exists in the packet units and correcting the error.

22-27. (Cancelled)

28. (Currently Amended) An apparatus for upgrading a software of a digital television broadcasting signal receiving apparatus, comprising:

a code detecting unit for receiving a digital advertisement broadcasting signal during only broadcasting of an advertisement and detecting whether the software code is inserted in a user data of the digital advertisement broadcasting signal;

a mode setting unit for setting a download-possible mode by determining whether the software code is downloadable;

a storage unit for downloading and storing the software code in case of the download-possible mode;

an error detecting unit for determining whether an error exists in the downloaded software code;

a version comparing unit for comparing a version of the downloaded software code and a version of a ~~previously installed~~ previous software code installed on the digital television broadcasting signal receiving apparatus; and

an upgrade processing unit for installing software associated with the software code on the digital television broadcasting signal receiving apparatus if the version of the downloaded software code is newer than the version of the ~~previously installed~~ previous software code and if no error exists in the downloaded software code.

29. (Original) The apparatus of claim 28, wherein the software code includes data of an upgraded system software.

30. (Currently Amended) A method for upgrading a software of a digital television broadcasting signal receiving apparatus, comprising the steps of:

detecting a software code included in a digital advertisement broadcasting signal during only broadcasting of an advertisement;

checking whether a software code inserted in ~~an~~ the digital advertisement broadcasting signal corresponds to a model of a the digital television broadcasting signal receiving apparatus or an error exists in the software code when the digital advertisement broadcasting signal is received;

comparing a version of the software code and a version of a ~~previously installed~~ previous software code installed on the digital television broadcasting signal receiving apparatus;

deleting the software code if the version of the software code is not newer than the version of the ~~previously installed~~ previous software code; and

~~checking whether the software will be upgraded~~ installing software associated with the software code on the digital television broadcasting signal receiving apparatus if the version of the software code is newer than the version of the ~~previously installed~~ previous software code; and

~~installing software associated with the software code according to a response from a user.~~

31. (Currently Amended) The ~~apparatus~~ method of claim 30, wherein the software code includes data of an upgraded system software.

32. (Previously Presented) The apparatus of claim 1, wherein the upgrade processing unit automatically downloads the software code during broadcasting of the advertisement broadcasting signal regardless the version of the software code.

33. (Cancelled)

34. (Currently Amended) The method of claim 11, further comprising:
automatically downloading the software code during broadcasting of the ~~digital~~ advertisement broadcasting signal regardless the version of the software code.

35. (Cancelled)

36. (Previously Presented) The apparatus of claim 28, wherein the upgrade processing unit automatically downloads the software code during broadcasting of the digital advertisement broadcasting signal regardless the version of the downloaded software code.

37. (Cancelled)

38. (Previously Presented) The method of claim 30, further comprising:

automatically downloading the software code during broadcasting of the digital advertisement broadcasting signal regardless the version of the software code.

39. (Cancelled)